

## STYLETECH™ Digital Media Guide

### Product Description

Engineering Grade retroreflective sheeting is a beaded plastic material that renders high retroreflectivity at night. It is designed for use mainly on traffic signs and is highly resistant to the extremes of hot, cold, dry, and humid weathering conditions. Engineer Grade is available in two different top coatings to meet your every need. Our acrylic top coating is for signs that are being silk-screened or can be used for sheeting aluminum blanks. The acrylic coat is specifically designed for screened ink adhesion. Our polyester top coating (PET) is for use in electronic cutting machines (plotters), and for vehicle graphics, logos, and striping, and may be used for sheeting blanks. The polyester top coating allows for more flexibility of the reflective material when weeding lettering and applying it to vehicles. The polyester top coating is not printable or for use in the silk-screening process. Traffic signs with engineer-grade reflective and transparent process colors are attractive and highly visible during both day and night and contribute greatly to driving safety. Acrylic top-coated engineer-grade reflective is available in 7 colors. Polyester (PET) top coated Engineer Grade reflective is available in 8 colors.

### Product Feature

Reflective Intensity Minimum Coefficient of Retroreflection: Type I – Engineer Grade reflective Candelas per Ft. Candle per Sq. Ft. Orange shall be warranted to retain 50% of its minimum specified coefficient of retroreflection for five (5) years from the date of fabrication.

O.A.	E.A.	White 152	Yellow 155	Red 151	Blue 153	Orange 156	Green 154	Brown 157
0.2°	-4°	70	50	14	4	25	9	1
0.2°	30°	30	22	6	1.7	7	3.5	0.3
0.5°	-4°	30	25	7.5	2	13	4.5	0.3
0.5°	30°	15	13	3	0.8	4	2.2	0.3

O.A. = Observation Angle

E.A. = Entrance Angle

NOTE: #P158 - Black Engineer Grade reflective is not tested or reported in the ASTM D4956 specification.

## Physical Properties

### When Bonded to Aluminum Panels

The data below is based on tests conducted on EG sheeting applied to acid-etched aluminum panels and conditioned for 48 hours or more at a room temperature of 74° F (23° C).

### Humidity Resistance

100% humidity at 27°C (81°F) for 72 hours: No effect

### Cold Resistance

72 hours at -56.6°C(-70°F): No effect

### Heat Resistance

72 hours at -71.1°C(160°F): 0.3 mm (0.012" maximum shrinkage from the edge of panel

### Adhesion

180° pullback at 30cm (12")/minute at 23°C(74°F): Minimum 2 kg/2.5 cm (4.4ppi) pulling strength at 23°C (74°F)

### 90° Peeling Test

0.8Kg (1.8lbs) weight suspended for 5 minutes: 3 mm (0.12") maximum peeling

**Accelerated Weathering** Sunshine Weather-0-Meter for 2,200 hours, Orange: 600 hours:

- \*No visible cracks, bubbles peeling or puckering
- \*Less than 0.2mm (0.00") shrinkage
- \*Reflectivity up to 50% greater than the minimum required of all known specifications
- \*No significant color change

### Salt Spray Effects

3% concentration at 25°C (95°F) for 500 hours: No effect